Name_____

Electronegativity and Types of Bonding Worksheet

1. Define Electronegativity

2. What happens to electronegativity from left to right across the periodic table? Explain why.

3. What is the trend in electronegativity in each group from top to bottom? Why?

4. What makes a covalent bond polar?

5. Fill in the blanks below:

   Metals tend to have _____electronegativites.

   Nonmetals tend to have _____ electronegativites.

   Bonds with a big difference in electronegativity are _____. Bonds with intermediate difference in electronegativity are _____, and bonds with no difference in electronegativity are _____.

6. Using only a simple periodic table, which element in each pair below will more strongly attract electrons?

   a. C or Cl b. Rb or Br c. I or In d. Ag or S e. As or Na

7. Metals tend to form cations. Is this consistent with the electronegativity of metal atoms?

For the next two questions use the electronegativity table on the back of this work sheet

8. Arrange these bonded pairs of atoms in order of increasing polarity: C-H, H-O, N-H, H-F

9. For the following compounds:
   A. Check off if the compounds contain ionic or covalent bonds.
   B. If the bonds are covalent, check off if they are polar or nonpolar.
   C. If the bonds are polar, indicate the direction of the dipole over two of the atoms.

	A		B		C
Compound	Ionic	Covalent	Nonpolar	Polar	Direction of Dipole
Ex: H_2O		✓		✓	O-H
$BaCl_2$					
NO					
F_2					
PH_3					